COURSE OVERVIEW HE2017

Fire Response Strategies (Onshore & Offshore)

Course Title
Fire Response Strategies (Onshore & Offshore)

Course Reference
HE2017

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Session(s)	Course Date	Venue
1	May 25-29, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
2	October 12-16, 2025	Olivine Meeting Room, Fairmont Nile City, Cairo, Egypt
3	December 07-11, 2025	Safir Meeting Room, Divan Istanbul, Taksim, Turkey

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Practical sessions will be performed using our equipment in order to apply the theory learnt in the class.

This course is designed to provide participants with a detailed and up-to-date overview of Fire Response Strategies (Onshore & Offshore). It covers the fire behavior and classification in oil and gas, common ignition sources in industrial settings and fire response strategies; the purpose and function of ESD systems and integrating with fire detection systems; the manual versus automatic shutdown and interlocks with control and safety systems; and the firefighting command structure, regulatory framework and safety standards.

Further the course, will also discuss the tactical approach for onshore installations, fixed firefighting systems and fire team deployment and coordination; the realistic fire scenarios, resource allocation and safety controls, pre-drill briefing and risk assessment and drill evaluation and improvement planning; and the radiant and convective heat, fire-resistant clothing effectiveness, cooling techniques and rotation strategy and using of barriers and heat shields.

During this interactive course, participants will learn the unique offshore fire hazards, firefighting in space-constrained environments and deluge and suppression systems; the offshore team navigation, entry control and offshore emergency response team roles; communicating with command centers, medevac procedures and safety and air-lift fire evacuation drills; the fire team structure and task assignments, SCBA and PPE mastery; the thermal imagers in thick smoke, object and human heat signature analysis and search patterns in confined space; the imaging limitations and maintenance and communication tools and protocols; and the rescue techniques in fire conditions and post-incident debriefing techniques.

Course Objectives

Upon the successful completion of this course, each participant will be able to: -

- Apply and gain an in-depth knowledge on onshore and offshore fire response strategies
- Discuss fire behavior and classification in oil and gas, common ignition sources in industrial settings and fire response strategies
- Identify the purpose and function of ESD systems, integrate with fire detection systems and discuss manual versus automatic shutdown and interlocks with control and safety systems
- Recognize firefighting command structure, regulatory framework and safety standards
- Carryout tactical approach for onshore installations, fixed firefighting systems and fire team deployment and coordination
- Develop realistic fire scenarios, resource allocation and safety controls, pre-drill briefing and risk assessment and drill evaluation and improvement planning
- Manage radiant and convective heat, fire-resistant clothing effectiveness, cooling techniques and rotation strategy and use of barriers and heat shields
- Recognize the unique offshore fire hazards, firefighting in space-constrained environments and deluge and suppression systems offshore, offshore team navigation and entry control
- Identify offshore emergency response team roles, communicate with command centers and apply medevac procedures and safety and air-lift fire evacuation drills
- Define fire team structure and task assignments and SCBA and PPE mastery
- Use thermal imagers in thick smoke and illustrate object and human heat signature analysis, search patterns in confined space and imaging limitations and maintenance
- Recognize communication tools and protocols and apply rescue techniques in fire conditions and post-incident debriefing techniques

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of fire response strategies for safety engineers, offshore installation managers, firefighters & fire officers (onshore & offshore facilities), security personnel involved in emergency response and emergency response team members.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Raymond Tegman is a **Senior HSE Consultant** with extensive experience within the **Oil & Gas**, **Petrochemical** and **Refinery** industries. His broad expertise widely covers in the areas of **Rigging** Safety Rules, Machinery & Hydraulic **Lifting Equipment**, Handling **Hazardous Chemicals**, Spill Containment, **Fire** Protection, **Fire** Precautions, **Incidents & Accidents** Reporting, **HSEQ** Audits & Inspection, **HSEQ** Procedures, **Environmental** Awareness, **Waste** Management Monitoring, **Emergency Planning**, **Emergency** Management, **Working at Heights**, **Root Cause Analysis**, **HSE** Rules & Regulations, Process Safety Management (**PSM**), Process Hazard Analysis (**PHA**), Techniques, **HAZOP**, **HSE** Risk, **Pre-Start-up Safety** Reviews, **HSE Risk** Identification, Assessments & Audit, **HSE Risk** Assessment & Management Concepts, **HSE Management** Policy & Standards, **HSSE Emergency Response & Crisis Management** Operations, **Confined Space Entry**, **Quantitative Risk Assessment** (**QRA**), Hazardous Materials & Chemicals Handling, Safety Precaution & Response Action Plan, **Hazard & Risk** Assessment, Task Risk Assessment (**TRA**), **Incident Command**, **Accident & Incident Investigation**, **Emergency Response Procedures**, Job Safety Analysis (**JSA**), Behavioural Based Safety (**BBS**), **Fall Protection**, **Work Permit & First Aid**, Lock-out/Tag-out (**LOTO**), **Emergency Response**, **Construction** Supervision, **Scaffolding** Inspection, **HAZCHEM**, Manual Material Handling, **Road Traffic** Supervision, ISO 9001 and OHSAS 18001.

During his career life, Mr. Tegman has gained his practical and field experience through his various significant positions and dedication as the **Operations Manager**, **Safety & Maintenance Manager**, **Safety Manager**, **Road/Traffic Supervisor**, **Assessor/Moderator**, **Safety Consultant**, **Safety Advisor**, **Safety Officer** and **Liaison Officer** from Zero Harm, SHRA Training & Services (Health & Safety), Road Crete, Balwin Property Development, DEME International, Gladstone Australia, Godavari Gas Pipeline and New Castle NCIG.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Fee

Dubai	**US$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	**US$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Istanbul	**US$ 6,000** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Fire Behavior & Classification in Oil & Gas*** *Properties of Hydrocarbon Fires (Pool, Jet, Flash) • Fire Triangle & Tetrahedron Concepts • Combustion Reactions & Smoke Behavior • Impact of Confined versus Open Space Fires*
0930 – 0945	*Break*
0945 – 1030	***Common Ignition Sources in Industrial Settings*** *Static Electricity & Hot Work • Electrical Faults & Equipment Overheating • Friction, Sparks, & Lightning • Process Upsets & Equipment Failure*
1030 – 1130	***Basics of Fire Response Strategies*** *Defensive versus Offensive Strategies • Fire Growth Stages & Response Timing • Emergency Response Plan (ERP) Structure • Role of Pre-Incident Planning*
1130 – 1215	***Emergency Shutdown (ESD) Systems Overview*** *Purpose & Function of ESD Systems • Integration with Fire Detection Systems • Manual versus Automatic Shutdown • Interlocks with Control & Safety Systems*
1215 – 1230	*Break*
1230 – 1330	***Firefighting Command Structure*** *Incident Command System (ICS) Roles • Fire Chief, Sector Leader, Safety Officer Roles • Chain of Command in Emergency Response • Coordination with External Agencies*
1330 – 1420	***Regulatory Framework & Safety Standards*** *NFPA, API, IMO, OSHA Relevance • Legal Requirements for Fire Safety • Insurance & Liability Implications • Compliance Documentation*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0830	***Tactical Approach for Onshore Installations*** *Tank Farm & Pipeline Response Strategies • Isolation & Containment Techniques • Exclusion Zone Setup • Fire Spread Prediction & Control*
0830 – 0930	***Fixed Firefighting Systems*** *Fire Hydrants & Dry Riser Systems • Foam-Based Extinguishing Systems • Monitors & Deluge Valve Systems • Maintenance & Inspection Routines*
0930 – 0945	*Break*
0945 – 1100	***Fire Team Deployment & Coordination*** *Entry Point Selection & Access Routes • Positioning of Backup & Safety Teams • Air Monitoring Before Entry • Establishing Water & Foam Supply Lines*
1100 – 1215	***Refinery Fire Case Studies*** *Lessons from Major Incidents • Root Causes & Failure Points • Human Factor Contributions • Response Efficiency Evaluation*
1215 – 1230	*Break*
1230 – 1330	***Onshore Mock Drill Planning*** *Developing Realistic Fire Scenarios • Resource Allocation & Safety Controls • Pre-Drill Briefing & Risk Assessment • Drill Evaluation & Improvement Planning*
1330 – 1420	***Exposure & Heat Impact Management*** *Managing Radiant & Convective Heat • Fire-Resistant Clothing Effectiveness • Cooling Techniques & Rotation Strategy • Use of Barriers & Heat Shields*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0830	***Unique Offshore Fire Hazards*** *Fire Risks on Helidecks & Flare Stacks • HVAC Fire Spread Risk in Confined Quarters • Diesel Storage, Kitchen, & Workshop Areas • Evacuation & Lifesaving Considerations*
0830 – 0930	***Firefighting in Space-Constrained Environments*** *Response Under Limited Access Routes • Deck-Level versus Multi-Level Firefighting • Escape Route Protection & Integrity • Coordination with Marine Vessels & Helicopters*
0930 – 0945	*Break*
0945 – 1100	***Deluge & Suppression Systems Offshore*** *Design & Operation of Deluge Systems • CO_2 & Inert Gas Systems in Enclosed Areas • Foam System Application for Deck Fires • Automatic vs. Manual Triggering*
1100 – 1215	***Offshore Team Navigation & Entry Control*** *Entry Control & Watch Log Procedures • Rope Techniques & Confined Space Access • Visibility Issues in Heavy Smoke • Thermal Imaging Camera Usage*
1215 – 1230	*Break*
1230 – 1420	***Live Simulations & Scenario Training*** *Team Reaction Time Measurement • Role Play with Staged Fire Conditions • Stress-Based Training Evaluation • Coordination Across Multi-Team Drills*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Coordination with Offshore ERT & Helicopter Rescue*** *Offshore Emergency Response Team Roles • Communication with Command Centers • Medevac Procedures & Safety • Air-Lift Fire Evacuation Drills*
0830 – 0930	***Fire Team Structure & Task Assignments*** *Attack, Backup, Search/Rescue, Support • Fire Commander Duties • Safety & Accountability Roles • Cross-Training & Redundancy Planning*
0930 – 0945	*Break*
0945 – 1100	***SCBA & PPE Mastery*** *Components of SCBA & Operation • Air Management Under Stress • Buddy Check & Donning Techniques • Emergency Escape Protocols*
1100 – 1215	***Thermal Imaging & Search Techniques*** *Use of Thermal Imagers in Thick Smoke • Object & Human Heat Signature Analysis • Search Patterns in Confined Space • Imaging Limitations & Maintenance*
1215 – 1230	*Break*
1230 – 1420	***Communication Tools & Protocols*** *Intrinsically Safe Radios • Standard Radio Language • Tactical Hand Signals & Visual Codes • Communication Discipline Under Pressure*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

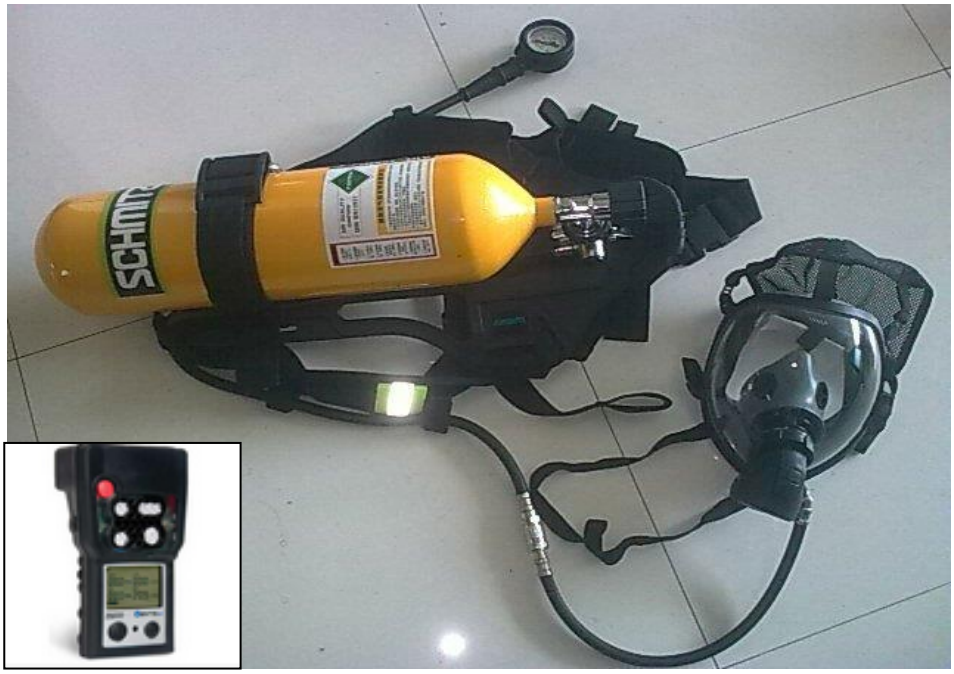
Day 5

0730 – 0830	***Rescue Techniques in Fire Conditions*** *Drag & Lift Techniques • Fire Blanket & Rescue Cover Use • Victim Prioritization & Triage • Heat Exposure Limits & Rescue Duration*
0830 – 0930	***Team-Based Tactical Exercises*** *Fire Scenario Division & Execution • Rotation & Role Reassignment • Dynamic Risk Assessment During Operation • Instructor Feedback & Improvement Loop*
0930 – 0945	*Break*
0945 - 1100	***Integrated Fire Scenario Simulation*** *Full-Scale Onshore & Offshore Simulation • Mixed Hazards & Response Prioritization • Real-Time Communication & Coordination • Evaluators Observe for Teamwork & Strategy*
1100 - 1230	***Post-Incident Debriefing Techniques*** *Hot-Wash Debrief Structure • What Went Well versus Improvement Areas • Lessons Learned Integration • Documentation & Knowledge Retention*
1230 – 1245	*Break*
1245 – 1345	***Practical Firefighting Evaluation*** *Execution of Tactical Entry & Suppression • SCBA Efficiency & Communication Skills • Hazard Awareness & Team Behavior • Real-Time Performance Scoring*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Hands-on Practical Sessions

Practical session will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using “Fire Extinguishers” & “SCBA & H2S Detector”.

Fire Extinguisher



SCBA & H_2S Detector

Course Coordinator

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